

IN THE CLAIMS:**CLAIMS:**

1. (currently amended) A catalyst composition for polymerization of olefins ~~and copolymerization of olefins with alpha-olefins~~ comprising (a) a catalyst precursor comprising at least one Ziegler-Natta compound, at least one metallocene compound, at least one titanate compound represented by the general formula $Ti(OR^1)_nX_{4-n}$, wherein R^1 represents an alkyl group, aryl group or cycloalkyl group having 1 to 20 carbon atoms, X represents a halogen atom, n represents a number satisfying $0 < n < 4$ ~~and/or or~~ at least one alcohol compound, a magnesium compound and a polymeric ~~material~~ support, and (b) a cocatalyst comprising an alkylaluminum compound; or an ~~or mixtures thereof.~~

2. (cancelled)

3. (currently amended) The catalyst composition according to claim 1, ~~or 2~~ wherein the Ziegler-Natta compound is represented by the general formula TmX_4 , $TmOX_3$, or TmX_3 , wherein Tm represents titanium, vanadium or zirconium and X represents a halogen atom.

4. (currently amended) The catalyst composition according to claim 3, wherein the Ziegler-Natta compound is comprises titanium tetrachloride, titanium trichloride, vanadium tetrachloride, vanadium trichloride, vanadium oxytrichloride; or zirconium tetrachloride ~~and the like.~~

5. (currently amended) The catalyst composition according to ~~any of the preceding claims~~ claim 3, wherein the metallocene compound is represented by the general formula $(Cp)_zTmX_y$, wherein Tm represents a transition metal ~~such as~~ comprising titanium, vanadium or zirconium, Cp represents a unsubstituted or substituted cyclopentadienyl ring, X represents a halogen atom, z is 1 or 2, and y is 2 or 3.

6. (cancelled)

7. (currently amended) The catalyst composition according to claim 5 ~~or 6~~, wherein the metallocene compound is comprises bis(cyclopentadienyl)titanium dichloride, bis(methylcyclopentadienyl)titanium dichloride, bis(butylcyclopentadienyl)titanium dichloride, bis(pentamethylcyclopentadienyl)titanium dichloride, cyclopentadienyltitanium trichloride, methylcyclopentadienyltitanium trichloride, butylcyclopentadienyltitanium trichloride, pentamethylcyclopentadienyltitanium trichloride, bis(cyclopentadienyl)vanadium dichloride, bis(methylcyclopentadienyl)vanadium dichloride, bis(butylcyclopentadienyl)vanadium dichloride, bis(pentamethylcyclopentadienyl)vanadium dichloride, cyclopentadienylvanadium trichloride, methylcyclopentadienylvanadium trichloride, butylcyclopentadienylvanadium trichloride, pentamethylcyclopentadienylvanadium trichloride, bis(cyclopentadienyl)zirconium dichloride, bis(methylcyclopentadienyl)zirconium dichloride, bis(butylcyclopentadienyl)zirconium dichloride, bis(pentamethylcyclopentadienyl)zirconium dichloride, cyclopentadienylzirconium trichloride, methylcyclopentadienylzirconium trichloride, butylcyclopentadienylzirconium trichloride, or pentamethylcyclopentadienylzirconium trichloride ~~and the like~~.

8. (currently amended) The catalyst composition according to claim 7, wherein the metallocene compound is bis(cyclopentadienyl)titanium dichloride, bis(methylcyclopentadienyl)titanium dichloride, bis(butylcyclopentadienyl)titanium dichloride, bis(pentamethylcyclopentadienyl)titanium dichloride, cyclopentadienyltitanium trichloride, methylcyclopentadienyltitanium trichloride, butylcyclopentadienyltitanium trichloride, or pentamethylcyclopentadienyltitanium trichloride.

9. (cancelled)

10. (currently amended) The catalyst composition according to claim 9 7, wherein the titanate compound is methoxytitanium trichloride, dimethoxytitanium dichloride, tetramethoxytitanium, ethoxytitanium trichloride, diethoxytitanium dichloride,

tetraethoxytitanium, propoxytitanium trichloride, dipropoxytitanium dichloride, tripropoxytitanium chloride, tetrapropoxytitanium, butoxytitanium trichloride, dibutoxytitanium dichloride, or tetrabutoxytitanium.

11. (currently amended) The catalyst composition according to claim ~~10~~ 8, wherein the titanate compound is tetraethoxytitanium, tetrapropoxytitanium, or tetrabutoxytitanium.

12. (currently amended) The catalyst composition according to ~~any of the preceding claims~~ claim 1, wherein the alcohol compound is represented by the general formula R^2OH , wherein R^2 is an alkyl group, aryl group or cycloalkyl group having 1 to 20 carbon atoms.

13. (currently amended) The catalyst composition according to claim ~~12~~ 10, wherein the alcohol ~~is~~ comprises methanol, ethanol, n-propanol, isopropanol, n-butanol, isobutanol, cyclohexanol, phenol, methylphenol, or ethylphenol ~~and mixtures thereof~~.

14. (currently amended) The catalyst composition according to ~~any of the preceding claims~~ claim 7, wherein the magnesium compound ~~is~~ comprises a Grignard compound represented by the general formula R^3MgX , wherein R^3 is a hydrocarbon group having 1 to 20 carbon atoms and X is a halogen atom, ~~and/or~~ or a dialkyl magnesium compound represented by the general formula R^4R^5Mg , wherein R^4 and R^5 are each a hydrocarbon group having 1 to 20 carbon atoms.

15. (currently amended) The catalyst composition according to claim ~~14~~ 10, wherein the magnesium compound ~~is~~ comprises diethylmagnesium, di-n-propylmagnesium, di-isopropylmagnesium, di-nbutylmagnesium, di-isobutylmagnesium, butylethylmagnesium, dihexylmagnesium, dioctylmagnesium, butyloctylmagnesium, etylmagnesium chloride, butylmagnesium chloride, or hexylmagnesium chloride ~~or mixtures thereof~~.

16. (currently amended) The catalyst composition according to ~~any of the preceding claims~~ claim 1, wherein the polymeric ~~material~~ support is in the form of particles having a mean particle diameter of about 5 to ~~1-000~~ 1000 microns and a pore volume of at least about 0.05

cm³/g and a pore diameter of about 20 to ~~10-000~~ 10000 angstroms and a surface area of about 0.1 to 100 m²/g.

17. (currently amended) The catalyst composition according to claim ~~16~~ 10, wherein the polymeric support is in the form of particles having a mean particle diameter of about 5 to 1-000 1000 microns, a pore diameter is from about 500 to ~~10-000~~ 10000 angstroms and the a surface area is from about 0.2 to 15 m²/g.

18. (currently amended) The catalyst composition according to ~~any of the preceding~~ claims claim 17, wherein the polymeric ~~material~~ support is selected from the group consisting of polyvinylchloride, polyvinylalcohol polyethylmethacrylate, polymethylmethacrylate, ethylene-vinylalcohol copolymer, or polycarbonate ~~and the like~~.

19. (currently amended) The catalyst composition according to claim 18, wherein the polymeric material is polyvinylchloride.

20. (cancelled)

21. (currently amended) The catalyst composition according to ~~any of the preceding~~ claims claim 15, wherein the magnesium compound is present in the range of about 0.05 to 20 mmol per gram of polymeric material support.

22. (currently amended) The catalyst composition according to any of the preceding ~~claims claim 5~~, wherein the alkylaluminum compound is represented by the general formula $R_n^6 AlX_{3-n}$ wherein R⁶ represents a hydrocarbon group having 1 to 10 carbon atoms; X represents a halogen and n represents a number satisfying $0 < n \leq 3$.

23. (currently amended) The catalyst composition according to claim ~~22~~ 14, wherein the alkylaluminum compound is trimethylaluminum, triethylaluminum, tri-isobutylaluminum or tri-n-hexylaluminum.

24. (currently amended) The catalyst composition according to ~~any of the preceding~~ claims claim 5, wherein the aluminoxane compound is represented by the general formula

$R^7R^8Al-O-AIR^9R^{10}$ wherein R^7, R^8, R^9, R^{10} are either the same or different linear, branched or cyclic alkyl group having 1 to 12 carbons; ~~such as methyl, ethyl, propyl or isobutyl.~~

25. (currently amended) The catalyst composition according to claim ~~24~~ 14, wherein the aluminoxane compound is methylaluminoxane or modified methylaluminoxane (MMAO).

26. (currently amended) The catalyst composition according to ~~any of the preceding claims~~ claim 5, wherein the cocatalyst is ~~used~~ present in an amount of about 10 to ~~10 000~~ 10000 in terms moles of aluminum in the cocatalyst to moles of transition metal in the catalyst precursor.

27. (currently amended) A process for ~~polymerization of~~ polymerizing olefins comprising contacting a feed comprising at least one olefin under olefin polymerization conditions with ~~and copolymerization of olefins with alpha-olefins using~~ a catalyst composition according to ~~any of the preceding claims~~ claim 1 to 26.

28. (Currently amended) The process according to claim 27, wherein said process ~~the polymerization~~ is performed in gas phase, slurry phase or solution phase.

29. (cancelled)

30. (new) The process according to claim 28, wherein said olefin feed comprises at least one linear olefin and at least one alpha olefin selected from the group comprising propene, 1-butene, 1-hexene, 1-octene and 4-methyl 1-pentene.